

SEP 12 2007

Serial No. 09/497,865

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PD-980034

**REMARKS**

This paper is submitted together with the Request for Continued Examination. In the Final Rejection claims 1-5 and 7-37 stand pending in the application. Claims 6, 14, 16-18, 22, 26-27, and 30-37 have been cancelled.

The Board has entered a new ground of rejection under 37 C.F.R. §41.05(b). The Board states that claims 7-12 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for being functional. Applicants have amended claim 7 and respectfully submit that the functional language has been removed. Claim 7 has been clarified to recite that the digital receiver determined a transmit direction by identifying one of the plurality of coded digital beam signals and determines a second beam corresponding to a second equatorial satellite in the constellation before handing over from a first equatorial satellite. Therefore, applicants respectfully submit that this rejection has been overcome.

Claims 1, 7, 13 and 21 have also been amended to clarify several points made by the Board. First, the claims have been limited to an antenna device that has a one-dimensionally rotating plate which rotates in a horizontal plane while maintaining a vertical position. This is different than the *Karlsson* reference cited in the office action. Thus, the radiation elements only scan in one direction, that is, the elevation direction. It should also be noted that the coding circuitry is used in two respects. First, the coding circuitry is used on the element signal prior to combination in a first multiplexer. The signals are then processed in analog form and then converted into digital form. As shown in Fig. 5, the signals are then match-filtered and beam-formed in block 54. The match filters 52 remove the coding so that the digital beams may be formed in block 54. The codes are then re-added to the digital signals and recombined into a stream in multiplexer 60. This is reflected in the claims by adding the second coding circuitry and the second multiplexer. Claims 1 and 7 reflect the circuitry in the multiplexer for this. Claim 13 is a method claim and recites two steps of consolidation to reflect the multiplexer language. Claim 21 has also been amended to reflect the second multiplexer. None of the references appears to teach or suggest the coding in the multiplexer set forth in the present circuitry. Therefore, applicant respectfully requests the Examiner to reconsider the rejections affirmed by the Board.

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In light of the remarks above, Applicants submit that all objections and rejections are now overcome. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, the Examiner is respectfully requested to contact the undersigned attorney.

Should any fees be associated with this submission, please charge Deposit Account 50-0383.

Respectfully submitted,

Dated: September 12, 2007

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